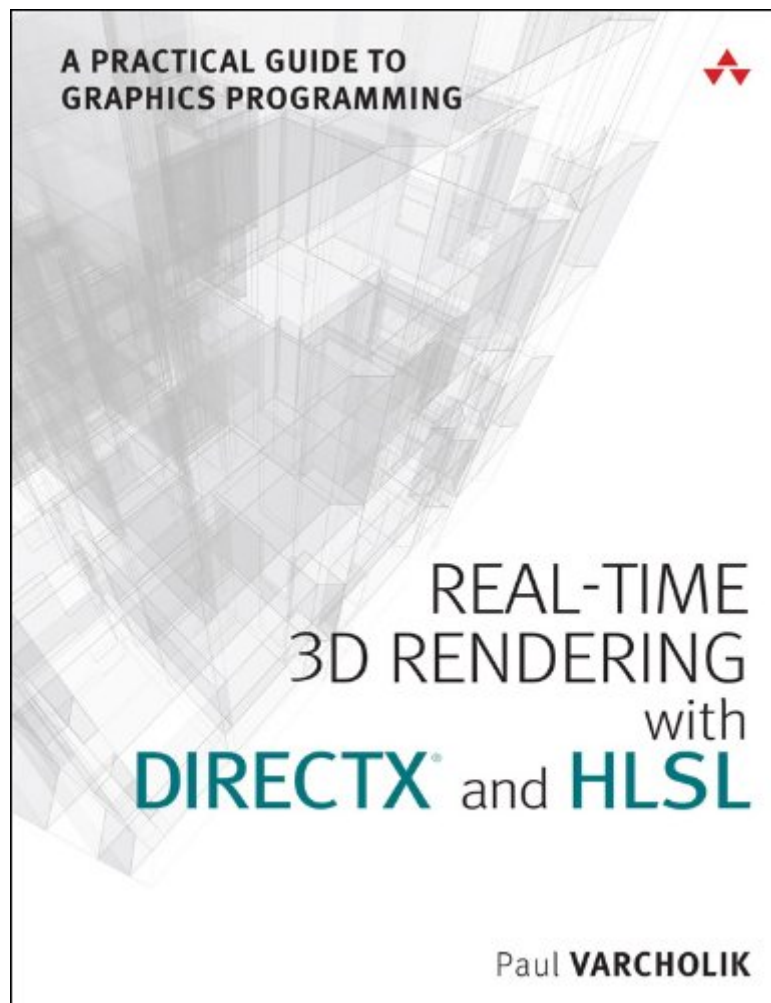


The book was found

Real-Time 3D Rendering With DirectX And HLSL: A Practical Guide To Graphics Programming (Game Design)



Synopsis

Get Started Quickly with DirectX 3D Programming: No 3D Experience Needed This step-by-step text demystifies modern graphics programming so you can quickly start writing professional code with DirectX and HLSL. Expert graphics instructor Paul Varcholik starts with the basics: a tour of the Direct3D graphics pipeline, a 3D math primer, and an introduction to the best tools and support libraries. Next, youâ€™ll discover shader authoring with HLSL. Youâ€™ll implement basic lighting models, including ambient lighting, diffuse lighting, and specular highlighting. Youâ€™ll write shaders to support point lights, spotlights, environment mapping, fog, color blending, normal mapping, and more. Then youâ€™ll employ C++ and the Direct3D API to develop a robust, extensible rendering engine. Youâ€™ll learn about virtual cameras, loading and rendering 3D models, mouse and keyboard input, and youâ€™ll create a flexible effect and material system to integrate your shaders. Finally, youâ€™ll extend your graphics knowledge with more advanced material, including post-processing techniques for color filtering, Gaussian blurring, bloom, and distortion mapping. Youâ€™ll develop shaders for casting shadows, work with geometry and tessellation shaders, and implement a complete skeletal animation system for importing and rendering animated models. You donâ€™t need any experience with 3D graphics or the associated math: Everythingâ€™s taught hands-on, and all graphics-specific code is fully explained. Coverage includes

- The Direct3D API and graphics pipeline
- A 3D math primer: vectors, matrices, coordinate systems, transformations, and the DirectX Math library
- Free and low-cost tools for authoring, debugging, and profiling shaders
- Extensive treatment of HLSL shader authoring
- Development of a C++ rendering engine
- Cameras, 3D models, materials, and lighting
- Post-processing effects
- Device input, component-based architecture, and software services
- Shadow mapping, depth maps, and projective texture mapping
- Skeletal animation
- Geometry and tessellation shaders
- Survey of rendering optimization, global illumination, compute shaders, deferred shading, and data-driven engine architecture

Book Information

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Customer Reviews

The book is great for a novice course . Somebody wrote NVIDIA FX Compose won't work on Windows 8.1, but the book site pointed a version that actually works.The aspects of DX 11 HLSL programming are introduced in a step by step way.The approach is hands on code instead a deep mathematical explanation.This very good for persons with a relative low knowledge in mathematics, besides graphic programming is heavily dependant on mathematics and physics.Is indeed a good option for introductory course.Unfortunately , the instructor materials are difficult to obtain and I need them for a class.Hope I could get it before the classes start.

I just bought digital and printed version of this book. Content looks great but a lot of samples depends on NVIDIA FX Composer that do not works on Windows 8.1.I'm trying to use something different, but...

Great book, detailed chapters, I use this book along with the new game engine architecture by Jason Gregory. In order to code DirectX 11.1 and 11.2 you still need the DirectX 11 foundation.

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